THEREFORE WHAT IS CLAIMED IS:

1. An apparatus for generating wave motion, comprising:

a) a flexible member and at least one link member having opposed first and second end portions and being rigidly attached at said first end portion to said flexible member;

b) oscillatory drive means operably connected to an inertial anchor, said oscillatory drive means including a crank assembly, and said at least one link member being attached to said crank assembly at said second end portion so that when said oscillatory drive means is engaged said second end portion undergoes oscillatory motion to produce transverse wave motion along said flexible member; and

c) the oscillatory drive means including control means for controlling a velocity of the transverse wave motion between a pre-selected upper velocity and zero velocity in which traveling waves produced by the transverse wave motion can be stopped at any point to freeze a wave shape in the flexible member.

2. The apparatus according to claim 1 wherein said crank assembly includes a crank shaft which engages said inertial anchor and a crank shaft housing, said oscillatory drive means including a motor which drives said crank shaft, and wherein said link member is formed by a combination of a boss integrally formed

with said crankshaft housing with said boss being attached at one end thereof to said flexible member.

3. The apparatus according to claim 1 wherein said crank assembly includes a crank shaft, and wherein said oscillatory drive means includes a motor which drives said crank shaft and a motor housing, said motor housing being rigidly connected to said inertial anchor, wherein said crank assembly is connected to said second end portion of the at least one link member.

4. The apparatus according to claim 1 wherein said at least one link member is at least two link members each having opposed first and second end portions, the at least two link members being spaced apart a first pre-selected distance from each other and each being rigidly attached at their respective first end portions to said flexible member, and including at least one elongate beam, said at least two link members being pivotally attached to said at least one elongate beam, and said at least one elongate beam being attached to said crank assembly, for imparting oscillatory motion to the at least one elongate beam so that when the oscillatory drive means is engaged the at least one elongate beam undergoes oscillatory motion which produces transverse waves along said flexible member.

5. The apparatus according to claim 1 including a support structure, and including securing means pivotally connected to two points spaced one half of a wavelength apart on the flexible member, the securing means being pivotally connected to the support structure such that the transverse waves are isolated from the support structure.

6. An apparatus for generating wave motion, comprising:

a) a flexible member;

b) oscillatory drive means attached to said flexible member, said oscillatory drive means including a motor and a motor shaft having a longitudinal axis attached to the motor which is rotated by the motor, and a crank assembly connected to the motor shaft;

c) at least two link members each having opposed first and second end portions, the at least two link members being spaced apart a first pre-selected distance from each other and each being rigidly attached at their respective first end portions to said flexible member; and

d) at least one elongate beam, said at least two link members being pivotally attached to said at least one elongate beam, the crank assembly including a crank housing pivotally connected to the motor shaft, the crank housing including a ball socket, a ball trunion including a trunion shaft with a ball portion at one end of the trunion shaft, the ball portion of the ball trunion being located in the ball socket and the other end of the trunion shaft being rigidly attached to the at least one elongate beam so that when the motor shaft is

rotated by the motor the trunion shaft undergoes rotation in a circular path about the longitudinal axis thereby causing the at least one elongate beam to undergo oscillatory motion which produces transverse waves along said flexible member.

7. The apparatus according to claim 6 wherein the oscillatory drive means includes control means for controlling a velocity of the transverse waves between a pre-selected upper velocity and zero velocity in which traveling waves produced by the transverse wave can be stopped at any point to freeze a wave shape in the flexible member.

8. The apparatus according to claim 6 wherein said oscillatory drive means is attached to said flexible member between said at least two link members, and wherein said at least one elongate beam is an elongate rigid beam.

9. The apparatus according to claim 8 wherein said flexible member is a substantially planar flexible member.

10. The apparatus according to claim 9 including two elongate ribs spaced apart said first pre-selected distance from each other and being attached to said planar flexible member and extending in a direction across said planar flexible member perpendicular to a direction of travel of said transverse traveling waves along said planar flexible member, and wherein said link members are rigidly attached at their first end portions to said ribs.

11. The apparatus according to claim 10 including a third elongate rib attached to said planar flexible member between said two elongate ribs and extending in a direction across said planar flexible member perpendicular to a direction of travel of said transverse traveling waves along said planar flexible member, and wherein said oscillatory drive means is rigidly attached to said third elongate rib.

12. The apparatus according to claim 9 including a second elongate rigid beam pivotally connected to another two link members which are rigidly connected at first end portions thereof to said planar flexible member and spaced apart a second pre-selected distance, said crank assembly including a first crank connected to said first elongate rigid beam and a second crank connected to said second elongate rigid beam, said two cranks being offset from each other by a preselected angular displacement so that the oscillatory drive means synchronously drives said two elongate rigid beams with an effective phase between each other so that said transverse traveling waves are produced along the planar flexible member.

13. The apparatus according to claim 12 including first and second elongate ribs spaced apart said first pre-selected distance from each other and being attached to said planar flexible member, including third and fourth elongate ribs spaced apart said second pre-selected distance from each other and being attached to said planar flexible member, said four elongate ribs extending in a

direction across said planar flexible member perpendicular to a direction of travel of said transverse traveling waves along said planar flexible member, and wherein each link member is rigidly attached at its first end portion to an associated elongate rib.

14. The apparatus according to claim 13 including a fifth elongate rib attached to said planar flexible member and extending in a direction across said planar flexible member perpendicular to a direction of travel of said transverse traveling waves along said planar flexible member, and wherein said oscillatory drive means is rigidly attached to said fifth elongate rib.

15. The apparatus according to claim 12 including a third elongate rigid beam located between said two elongate rigid beams and pivotally connected to another two link members which are rigidly connected to said planar flexible member and spaced apart a third pre-selected distance, said third elongate rigid beam being pivotally attached to said oscillatory drive means.

16. The apparatus according to claim 14 including a third elongate rigid beam located between said two elongate rigid beams and pivotally connected to another two link members which are rigidly connected to sixth and seventh elongate ribs attached to said planar flexible member with said sixth and seventh ribs being spaced apart a third pre-selected distance and extending in a direction

across said planar flexible member perpendicular to a direction of travel of said transverse traveling waves along said planar flexible member.

17. The apparatus according to claim 12 wherein said planar flexible member is a substantially planar spring assembly.

18. The apparatus according to claim 17 wherein said planar spring assembly is attached to one of a bed frame and a chair frame.

19. The apparatus according to claim 16 wherein said planar flexible member is a substantially planar spring assembly.

20. The apparatus according to claim 19 wherein said planar spring assembly is attached to one of a bed frame and a chair frame.

21. The apparatus according to claim 6 wherein said at least one elongate beam includes at least three flexible beams that are flexible in at least one plane perpendicular to the direction of travel of said transverse waves and rigid in tension in a plane parallel to the direction of travel of said transverse waves, and wherein said at least two link members is at least six link members, and wherein said at least three flexible beams are each connected to at least two of said at least six link members, said at least three flexible beams being connected to said crank assembly, said crank assembly having at least three crank positions driven

in phase so that the oscillatory drive means synchronously drives said at least three flexible beams with an effective phase between each of them so that said transverse traveling waves are produced along the planar flexible member.

22. The apparatus according to claim 21 wherein said at least three flexible beams are flexible in two planes perpendicular to the direction of travel of the transverse waves.

23. The apparatus according to claim 22 wherein said at least three flexible beams are wire cables.

24. The apparatus according to claim 23 wherein said link members include adjustment means for adjusting a length of each cable at a point of attachment of the cables to the link members for changing a static shape of the flexible member reshaping the flexible member to a desired ergonomic profile.

25. The apparatus according to claim 24 wherein said flexible member is a substantially planar flexible member.

26. The apparatus according to claim 25 wherein said planar flexible member is attached to one of a bed frame and a chair frame.

27. The apparatus according to claim 24 wherein said planar flexible member is a substantially planar spring assembly.

28. The apparatus according to claim 27 wherein said planar spring assembly is attached to one of a bed frame and a chair frame.

29. The apparatus according to claim 6 including a support structure, and including securing means pivotally connected to two points spaced one half of a wavelength apart on the flexible member, the securing means being pivotally connected to the support structure such that the transverse waves are isolated from the support structure.

30. A wave generating device for pumping bodily fluids in a person, comprising;

a) a flexible member;

b) two elongate beams and two link members connected to each of the two elongate beams, each link member having opposed first and second end portions, the two link members associated with each of the two elongate beams being pivotally attached at said second end portions to said associated elongate beam, and each link member being rigidly attached at their respective first end portions to said flexible member;

c) oscillatory drive means operably coupled to said flexible member for producing transverse wave motion in said flexible member, said oscillatory drive

means including a motor coupled to a two-sided crankshaft having a crank attached to each end of the two-sided crankshaft, each crank having a pin attached thereto which engage the elongate beams so that so that when the motor rotates the two-sided crankshaft thereby rotating the two cranks the two elongate beams undergo oscillatory motion which produces transverse waves in the flexible member; and

d) securing means for attaching said wave generating device to a person with said flexible member bearing against a part of a person's anatomy through which body fluids are to be pumped.

31. The wave generating device according to claim 30 wherein said motor is a gear-reduced motor having an output drive pinion gear which engages a gear mounted on the two-sided crankshaft.

32. The wave generating device according to claim 31 including a battery pack mounted on said flexible member connected to said gear-reduced motor.

33. A method of preventing and/or mitigating effects of post thrombotic syndrome (PTS), comprising:

attaching a motor driven wave generating device for pumping bodily fluids to a portion of a person's body, the wave generating device including a flexible member in which transverse waves are produced which is placed on the portion of the person's body so that when transverse waves are produced in the flexible

member bodily fluids are pumped in the persons body in the region adjacent to the flexible member.

34. The method according to claim 33 wherein the portion of the person's body on which the motor driven wave generating device is attached is the back side of the lower leg over the calf.

35. A method of preventing and/or mitigating effects of deep vein thrombosis (DVT) comprising:

attaching a motor driven wave generating device for pumping bodily fluids to a portion of a person's body, the wave generating device including a flexible member in which transverse waves are produced which is placed on the portion of the person's body so that when transverse waves are produced in the flexible member bodily fluids are pumped in the persons body in the region adjacent to the flexible member.

36. The method according to claim 35 wherein the portion of the person's body on which the motor driven wave generating device is attached is the back side of the lower leg over the calf.

37. A universal crank assembly, comprising:

a crank housing being pivotally attachable to a motor shaft which is driven by a motor, the motor shaft defining a longitudinal input axis about which the motor shaft rotates, the crank housing including a ball socket; and

a ball trunion including a trunion shaft defining an output axis and having a ball portion at one end of the trunion shaft, the ball portion of the ball trunion being located in the ball socket and the other end of the trunion shaft being rigidly attachable to a member which is to be rotated in a circular path so that when the motor shaft is rotated by the motor the trunion shaft undergoes rotation in a circular path about the longitudinal axis thereby causing the member to which the trunion shaft is rigidly attached undergoes oscillatory motion in a circular path, and wherein the ball trunion and ball socket provide compensation when the input and output axes are nonaligned.